



Attorney Docket No. SYNI-003CN

SEQUENCE LISTING

<110> FISCHER, GERALD W.  
SCHUMAN, RICHARD F.  
WONG, HING  
STINSON, JEFFREY R.

<120> OPSONIC AND PROTECTIVE MONOCLONAL AND CHIMERIC  
ANTIBODIES SPECIFIC FOR LIPOTEICHOIC ACID OF GRAM  
POSITIVE BACTERIA

<130> SYNI-003CN

<140> 10/601,171  
<141> 2003-06-23

<150> 09/097,055  
<151> 1998-06-15

<150> 60/049,871  
<151> 1997-06-16

<160> 89

<170> PatentIn Ver. 3.3

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<210> 3  
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<223> Description of Artificial Sequence: Synthetic primer

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21

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic oligonucleotide

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<222> (1)..(30)

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Gly Ala His Ala Asp Arg Val Tyr Gly Ala  
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30

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<212> PRT

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<211> 30

<212> DNA

<213> Artificial Sequence

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<222> (1)..(30)

<220>

<221> modified\_base

<222> (5)

<223> a, c, g, t, unknown, or other

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30

<210> 7

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<212> PRT

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<210> 8

<211> 57

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<222> (1)..(57)

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48

cgt ggg gcc  
Arg Gly Ala

57

<210> 9

<211> 19

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<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

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Arg Gly Ala

<210> 10

<211> 57

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Gly Ala Arg Arg His Gly Asn Phe Ser His Phe Phe His Arg Ser Leu  
1 5 10 15

att ggg gcc 57  
Ile Gly Ala

<210> 11

<211> 19

<212> PRT

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Ile Gly Ala

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gct ggg gcc 57  
Ala Gly Ala

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1 5 10 15

cgt ggg gcc  
Arg Gly Ala

57

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1 5 10 15

cgt ggg gcc  
Arg Gly Ala

57

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1 5 10 15

Arg Gly Ala

<210> 18  
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<222> (1)..(57)

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1 5 10 15  
  
cgt ggg gcc 57  
Arg Gly Ala

<210> 19  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

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1 5 10 15

Arg Gly Ala

<210> 20  
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<212> DNA  
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oligonucleotide

<220>  
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<222> (1)..(57)

<400> 20

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Gly Ala Gln Val Ala Val Leu Tyr Pro Pro Leu Ala Asp Ala Thr Glu  
1 5 10 15

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Leu Gly Ala

<210> 21

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
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<400> 21

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1 5 10 15

Leu Gly Ala

<210> 22

<211> 57

<212> DNA

<213> Artificial Sequence

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oligonucleotide

<220>

<221> CDS

<222> (1)..(57)

<400> 22

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1 5 10 15

att ggg gcc 57  
Ile Gly Ala

<210> 23

<211> 19

<212> PRT

<213> Artificial Sequence

<220>



<223> Description of Artificial Sequence: Synthetic peptide

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<210> 24  
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<220>  
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Gly Ala Arg Arg His Gly Asn Phe Ser His Phe Phe His Arg Ser Leu  
1 5 10 15  
att ggg gcc 57  
Ile Gly Ala

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Ile Gly Ala

<210> 26  
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Gly Ala Trp Arg Met Tyr Phe Ser His Arg His Ala His Leu Arg Ser	
1 5 10 15	

cct ggg gcc	57
Pro Gly Ala	

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<212> PRT

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Gly Ala Trp Arg Met Tyr Phe Ser His Arg His Ala His Leu Arg Ser	
1 5 10 15	

Pro Gly Ala

<210> 28

<211> 57

<212> DNA

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<222> (1)..(57)

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1 5 10 15	

cct ggg gcc	57
Pro Gly Ala	

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1 5 10 15

Pro Gly Ala

<210> 30  
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<222> (1)..(57)

<400> 30  
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Gly Ala Trp Arg Lys Tyr Phe Ser Tyr His His Ala His Leu Cys Ser  
1 5 10 15

cct ggg gcc 57  
Pro Gly Ala

<210> 31  
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peptide

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Gly Ala Trp Arg Lys Tyr Phe Ser Tyr His His Ala His Leu Cys Ser  
1 5 10 15

Pro Gly Ala

<210> 32  
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<222> (1)..(57)

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Gly Ala Trp Arg Met Tyr Phe Ser His Arg His Ala His Leu Arg Ser  
1 5 10 15  
  
cct ggg gcc 57  
Pro Gly Ala

<210> 33  
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peptide

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1 5 10 15  
  
Pro Gly Ala

<210> 34  
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<400> 34  
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Gly Ala Trp Arg Met Tyr Phe Ser His Arg His Ala His Leu Arg Ser  
1 5 10 15

cct ggg gcc  
Pro Gly Ala

57

<210> 35  
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1 5 10 15

Pro Gly Ala

<210> 36  
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<222> (1)..(57)

<400> 36  
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Gly Ala Trp Arg Met Tyr Phe Ser His Arg His Ala His Leu Arg Ser  
1 5 10 15

cct ggg gcc  
Pro Gly Ala

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<210> 37  
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peptide

<400> 37

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Gly Ala Trp Arg Met Tyr Phe Ser His Arg His Ala His Leu Arg Ser  
1 5 10 15

Pro Gly Ala

<210> 38  
<211> 57  
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<222> (1)..(57)

<400> 38  
ggg gct cgt cgg cat ggt aat ttt tct cat ttt ttt cat cgg tcg ttg 48  
Gly Ala Arg Arg His Gly Asn Phe Ser His Phe Phe His Arg Ser Leu  
1 5 10 15

att ggg gcc 57  
Ile Gly Ala

<210> 39  
<211> 19  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

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Gly Ala Arg Arg His Gly Asn Phe Ser His Phe Phe His Arg Ser Leu  
1 5 10 15

Ile Gly Ala

<210> 40  
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oligonucleotide

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<222> (1)..(57)

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Gly Ala Trp His Trp Arg His Arg Ile Pro Leu Gln Leu Ala Ala Gly	
1 5 10 15	

cgt ggg gcc	57
Arg Gly Ala	

<210> 41

<211> 19

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

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Gly Ala Trp His Trp Arg His Arg Ile Pro Leu Gln Leu Ala Ala Gly	
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Arg Gly Ala

<210> 42

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<212> DNA

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<222> (1)..(57)

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Gly Ala Arg Arg His Gly Asn Phe Ser His Phe Phe His Arg Ser Leu	
1 5 10 15	

att ggg gcc	57
Ile Gly Ala	

<210> 43

<211> 19

<212> PRT

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 43

Gly Ala Arg Arg His Gly Asn Phe Ser His Phe Phe His Arg Ser Leu  
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Ile Gly Ala

<210> 44

<211> 57

<212> DNA

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<220>

<221> CDS

<222> (1)..(57)

<400> 44

ggg gct gat tgg att act ttt cat cgt cgt cat cat gat cgt gtt ctt 48  
Gly Ala Asp Trp Ile Thr Phe His Arg Arg His His Asp Arg Val Leu  
1 5 10 15

tct ggg gcc 57  
Ser Gly Ala

<210> 45

<211> 19

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 45

Gly Ala Asp Trp Ile Thr Phe His Arg Arg His His Asp Arg Val Leu  
1 5 10 15

Ser Gly Ala

<210> 46

<211> 57



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<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

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<222> (1)..(57)

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Gly	Ala	Gly	Trp	Ile	Thr	Phe	His	Arg	Arg	His	His	Asp	Arg	Val	Leu	
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tct ggg gcc

57

Ser Gly Ala

<210> 47

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 47

Gly	Ala	Gly	Trp	Ile	Thr	Phe	His	Arg	Arg	His	His	Asp	Arg	Val	Leu
1				5				10					15		

Ser Gly Ala

<210> 48

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<220>

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<222> (1)..(57)

<400> 48

ggg	gct	ggg	aag	gct	atg	ttt	agt	cat	tct	tat	cgt	cat	cgg	ggt	tcg	48
Gly	Ala	Gly	Lys	Ala	Met	Phe	Ser	His	Ser	Tyr	Arg	His	Arg	Gly	Ser	
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gct ggg gcc

57

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Ala Gly Ala

<210> 49  
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<212> PRT  
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<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 49  
Gly Ala Gly Lys Ala Met Phe Ser His Ser Tyr Arg His Arg Gly Ser  
1 5 10 15

Ala Gly Ala

<210> 50  
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<220>  
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Gly Ala Asp Trp Ile Thr Phe His Arg Arg His His Asp Arg Val Leu  
1 5 10 15

tct ggg gcc 57  
Ser Gly Ala

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Ser Gly Ala

<210> 52  
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<400> 52  
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Gly Ala Ser Arg His Met Leu Ala Arg Trp Ser Arg Leu Leu Ala Val  
1 5 10 15  
  
cct ggg gcc 57  
Pro Gly Ala

<210> 53  
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<220>  
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peptide

<400> 53  
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1 5 10 15  
  
Pro Gly Ala

<210> 54  
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<220>  
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<400> 54  
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Gly Ala Gly Lys Ala Met Phe Ser His Ser Tyr Arg His Arg Gly Ser  
1 5 10 15  
  
gct ggg gcc 57  
Ala Gly Ala

<210> 55  
<211> 19  
<212> PRT  
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<220>  
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peptide

<400> 55  
Gly Ala Gly Lys Ala Met Phe Ser His Ser Tyr Arg His Arg Gly Ser  
1 5 10 15  
  
Ala Gly Ala

<210> 56  
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<212> DNA  
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<220>  
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<222> (1)..(57)

<400> 56  
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Gly Ala Trp His Trp Arg His Arg Ile Pro Leu Gln Leu Ala Ala Gly  
1 5 10 15  
  
cgt ggg gcc 57  
Arg Gly Ala

<210> 57  
<211> 19  
<212> PRT  
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<220>  
<223> Description of Artificial Sequence: Synthetic

peptide

<400> 57  
Gly Ala Trp His Trp Arg His Arg Ile Pro Leu Gln Leu Ala Ala Gly  
1 5 10 15  
Arg Gly Ala

<210> 58  
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<212> DNA  
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oligonucleotide

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<222> (1)..(57)

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Gly Ala Arg Arg His Gly Asn Phe Ser His Phe Phe His Arg Ser Leu  
1 5 10 15  
att ggg gcc 57  
Ile Gly Ala

<210> 59  
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<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 59  
Gly Ala Arg Arg His Gly Asn Phe Ser His Phe Phe His Arg Ser Leu  
1 5 10 15  
Ile Gly Ala

<210> 60  
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oligonucleotide

<220>

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<222> (1)..(57)

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ggg gct tgg aag gct ttg ttt agt cat tct tat cgt cct cgg ggt tcg	48
Gly Ala Trp Lys Ala Leu Phe Ser His Ser Tyr Arg Pro Arg Gly Ser	
1 5 10 15	

gct ggg gcc	57
Ala Gly Ala	

<210> 61

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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 61

Gly Ala Trp Lys Ala Leu Phe Ser His Ser Tyr Arg Pro Arg Gly Ser	
1 5 10 15	

Ala Gly Ala

<210> 62

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<212> DNA

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oligonucleotide

<220>

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<222> (1)..(57)

<400> 62

ggg gct cag gtg gct gtt ttg tat cct cct ttg gct gat gct act gag	48
Gly Ala Gln Val Ala Val Leu Tyr Pro Pro Leu Ala Asp Ala Thr Glu	
1 5 10 15	

ctt ggg gcc	57
Leu Gly Ala	

<210> 63

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<211> 19  
<212> PRT  
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<220>  
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peptide

<400> 63  
Gly Ala Gln Val Ala Val Leu Tyr Pro Pro Leu Ala Asp Ala Thr Glu  
1 5 10 15

Leu Gly Ala

<210> 64  
<211> 57  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<220>  
<221> CDS  
<222> (1)..(57)

<400> 64  
ggg gct tgg cgt atg tat ttt tct cat cgt cat gcg cat ctt cgt agt 48  
Gly Ala Trp Arg Met Tyr Phe Ser His Arg His Ala His Leu Arg Ser  
1 5 10 15

cct ggg gcc 57  
Pro Gly Ala

<210> 65  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 65  
Gly Ala Trp Arg Met Tyr Phe Ser His Arg His Ala His Leu Arg Ser  
1 5 10 15

Pro Gly Ala

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<210> 66  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<220>  
<221> CDS  
<222> (1)..(30)

<400> 66  
ggg gct cat gcg gat agg gtt tat ggg gcc  
Gly Ala His Ala Asp Arg Val Tyr Gly Ala  
1 5 10

30

<210> 67  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 67  
Gly Ala His Ala Asp Arg Val Tyr Gly Ala  
1 5 10

<210> 68  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
primer

<400> 68  
atttcaggcc cagccggcca tggccgargt rmagctksak gagwc

45

<210> 69  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
primer

<400> 69



atttcaggcc cagccggcca tggccgargt ycarctkcar caryc 45

<210> 70  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
primer

<400> 70  
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<210> 71  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
primer

<400> 71  
atttcaggcc cagccggcca tggccgavgt gmwgctkgtg gagwc 45

<210> 72  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
primer

<400> 72  
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<210> 73  
<211> 35  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
primer

<400> 73  
gctgccaccg ccacctgmrg agacdgtgas tgarg 35

<210> 74  
<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
primer

<400> 74

gctgccaccg ccacctgmrg agacdgtgas mgtrg

35

<210> 75

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
primer

<400> 75

gctgccaccg ccacctgmrg agacdgtgas cagrg

35

<210> 76

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
primer

<400> 76

cccgggccac catggagaca gacacactcc tg

32

<210> 77

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
primer

<400> 77

cccgggccac catggatttt caagtcaga ttttc

35

<210> 78

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 78  
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<210> 79  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic primer

<400> 79  
cccggggccac catgkccccw rctcagyttc tkg 33

<210> 80  
<211> 31  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic primer

<400> 80  
cccggggcacc atgaagttgc ctgttaggct g 31

<210> 81  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic primer

<400> 81  
gcacctccag atgttaactg ctc 23

<210> 82  
<211> 54  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic primer

<400> 82

taatatcgcg acagctacag gtgtccactc ccgaagtgat gctggtggag wctg 54

<210> 83  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
primer

<400> 83  
ttatagaatt ctgaggagac ggtgagtgag 30

<210> 84  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
primer

<400> 84  
ttaggcgata tcgttctctc ccagtctcc 29

<210> 85  
<211> 46  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
primer

<400> 85  
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<210> 86  
<211> 369  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<220>  
<221> CDS  
<222> (1)..(369)

<400> 86  
gaa gtg atg ctg gtg gag tct ggt gga gga ttg gtg cag cct aaa ggg 48

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Glu Val Met Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Lys Gly
  1              5              10              15
tca ttg aaa ctc tca tgt gca gcc tct gga ttc acc ttc aat aac tac    96
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Asn Tyr
      20              25              30
gcc atg aat tgg gtc cgc cag gct cca gga aag ggt ttg gaa tgg gtt    144
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
      35              40              45
gct cgc ata aga agt aaa agt aat aat tat gca aca ttt tat gcc gat    192
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Phe Tyr Ala Asp
      50              55              60
tca gtg aaa gac agg ttc acc atc tcc aga gat gat tca caa agc atg    240
Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Gln Ser Met
      65              70              75              80
ctc tat ctg caa atg aac aac ttg aaa act gag gac aca gcc atg tat    288
Leu Tyr Leu Gln Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Met Tyr
      85              90              95
tac tgt gtg aga cgg ggg gct tca ggg att gac tat gct atg gac tac    336
Tyr Cys Val Arg Arg Gly Ala Ser Gly Ile Asp Tyr Ala Met Asp Tyr
      100              105              110
tgg ggt caa gga acc tca ctc acc gtc tcc tca
Trp Gly Gln Gly Thr Ser Leu Thr Val Ser Ser
      115              120
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<210> 87  
<211> 123  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
amino acid sequence

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<400> 87
Glu Val Met Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Lys Gly
  1              5              10              15
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Asn Tyr
      20              25              30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
      35              40              45
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Phe Tyr Ala Asp
      50              55              60
Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Gln Ser Met
      65              70              75              80
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Leu Tyr Leu Gln Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Met Tyr  
85 90 95  
Tyr Cys Val Arg Arg Gly Ala Ser Gly Ile Asp Tyr Ala Met Asp Tyr  
100 105 110  
Trp Gly Gln Gly Thr Ser Leu Thr Val Ser Ser  
115 120

<210> 88  
<211> 318  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
nucleotide sequence

<220>  
<221> CDS  
<222> (1)..(318)

<400> 88  
caa att gtt ctc tcc cag tct cca gca atc ctg tct gca tct cca ggg 48  
Gln Ile Val Leu Ser Gln Ser Pro Ala Ile Leu Ser Ala Ser Pro Gly  
1 5 10 15  
gaa aag gtc aca atg act tgc agg gcc agc tca agt gta aat tac atg 96  
Glu Lys Val Thr Met Thr Cys Arg Ala Ser Ser Ser Val Asn Tyr Met  
20 25 30  
cac tgg tac cag cag aag cca gga tcc tcc ccc aaa ccc tgg att tct 144  
His Trp Tyr Gln Gln Lys Pro Gly Ser Ser Pro Lys Pro Trp Ile Ser  
35 40 45  
gcc aca tcc aac ctg gct tct gga gtc cct gct cgc ttc agt ggc agt 192  
Ala Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser  
50 55 60  
ggg tct ggg acc tct tac tct ctc aca atc agc aga gtg gag gct gaa 240  
Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Arg Val Glu Ala Glu  
65 70 75 80  
gat gct gcc act tat tac tgc cag cag tgg agt agt aac cca ccc acg 288  
Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Pro Thr  
85 90 95  
ttc gga ggg ggg acc atg ctg gaa ata aga 318  
Phe Gly Gly Gly Thr Met Leu Glu Ile Arg  
100 105

<210> 89  
<211> 106

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<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
amino acid sequence

<400> 89

Gln	Ile	Val	Leu	Ser	Gln	Ser	Pro	Ala	Ile	Leu	Ser	Ala	Ser	Pro	Gly	
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Glu	Lys	Val	Thr	Met	Thr	Cys	Arg	Ala	Ser	Ser	Ser	Val	Asn	Tyr	Met	
			20					25					30			
His	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Ser	Ser	Pro	Lys	Pro	Trp	Ile	Ser	
		35					40					45				
Ala	Thr	Ser	Asn	Leu	Ala	Ser	Gly	Val	Pro	Ala	Arg	Phe	Ser	Gly	Ser	
	50					55					60					
Gly	Ser	Gly	Thr	Ser	Tyr	Ser	Leu	Thr	Ile	Ser	Arg	Val	Glu	Ala	Glu	
65					70					75					80	
Asp	Ala	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Trp	Ser	Ser	Asn	Pro	Pro	Thr	
				85					90					95		
Phe	Gly	Gly	Gly	Thr	Met	Leu	Glu	Ile	Arg							
			100					105								